

REMARKS

Claims 28-40 and 46-48 are pending in the application.

Claims 28-40 and 46-48 stand rejected.

Claims 1-27, 41-45 and 49-62 were previously cancelled.

Claims 46 and 47 have been amended.

Objections to the Abstract and Title

The Abstract and Title of the disclosure have been revised as suggested on page 2 of the Office Action.

Rejection of Claims under 35 U.S.C. §112

Claims 28-40 and 46-48 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Particularly, the rejection states that it “is not clear as to what being referring [sic] as ‘first connector and second connector.’”

The “first connector” and the “second connector” recited in claim 28 refer to connectors that are respectively part of the first circuit board and the second circuit board. As noted in claim 28, the second connector is “configured to be mated to the first connector” and, “when mated to each other, the first connector and the second connector provide a first connection for transmitting at least one signal between the first circuit board and the second circuit board.” Applicant asserts that this language is clear and definite - the first and second connectors are connectors that can be mated to each other and that, when mated, provide a connection for transmitting a signal between the first and second circuit boards. Accordingly, Applicant respectfully requests the withdrawal of this rejection.

The specification discloses examples of such connectors (e.g., lines 14-15 of page 3 of the specification state: “In one embodiment the connector is an optical connector”). However, Applicant also notes such optical connectors (cited by the Examiner on p. 2 of the Office Action) are merely provided as examples of the connectors that can be included on the circuit boards.

Providing such examples, Applicants note, is one of the primary functions of the written description. The mere inclusion of such examples should not limit the claims.

Claims 46-48 were also rejected under. These claims have been amended to remove the “means for” language and to change the “one or more pins” to “at least one pin.” Applicants respectfully assert that the amended claims are clear and definite.

Rejection of Claims under 35 U.S.C. §102

Claims 28-35 stand rejected under 35 U.S.C. § 102(b) as being anticipated by August, et al., U.S. Patent No. 4,911,645 (hereinafter referred to as “August”). Applicant respectfully traverses this rejection.

The cited art fails to anticipate, teach, or suggest a “first circuit board comprising... a first connector [and] a second circuit board comprising... a second connector configured to be mated to the first connector,” as recited in claim 28.

On page 3 of the Office Action, the Examiner equates element 102 of FIG. 1 of August with the first connector of claim 28. Similarly, the Examiner equates element 108 of FIG. 1 of August with the second connector of claim 28. Element 102 is a shuttle block and element 108 is a set of plated-through holes. “[D]ual flex pins 101 are perpendicularly affixed to shuttle block 102... Dual flex pins 101 are first inserted through plated-through holes 108 of pc board 103 and into plated-through holes 110 of connector board 105.” August, col. 3, lines 62-68. Accordingly, shuttle block 102 is not part of either the “pc board 103” or the “connector board 105” disclosed in August. Instead, shuttle block is a separate element that couples the two boards when August’s dual flex pins 101 are inserted into plated-through holes 108 and 110. Thus, shuttle block 102 is not a “first connector” such as that recited in claim 1, since a circuit board does not comprise the shuttle block 102. Furthermore, the cited portions of August neither teach nor suggest such a first connector. Accordingly, for at least this reason, claim 28 is patentable over the cited art.

The cited art further fails to anticipate, teach, or suggest a first circuit board comprising a first electrical contact and a second circuit board comprising a second electrical contact, as recited in claim 28. Element 101 of FIG. 1 of August is equated with both the first electrical contact and the second electrical contact. Office Action, p. 3. Element 101 is a set of dual flex

pins that are affixed to a shuttle block. August, col. 3, lines 62-65. Element 101 is not part of either board (the pc board or the connector board) depicted in FIG. 1 of August. Additionally, it is clear that the same element (dual flex pins 101 here) could not be part of two separate circuit boards. Accordingly, element 101 anticipates neither “a first circuit board comprising a first electrical contact” nor “a second circuit board comprising a second electrical contact.” For this reason, claim 28 is further patentable over the cited art.

Furthermore, the cited art does not anticipate, teach, or suggest “at least one pin [that] is perpendicular to the first connection between the first connector and the second connector,” as recited in claim 28. On page 3 of the Office Action, the Examiner states that: “pins 115 is perpendicular to the first connector 102 of the first circuit board 103.” However, it is irrelevant whether a pin is perpendicular to a connector, since claim 28 recites a pin that is perpendicular to a connection between a pair of connectors. The cited art neither teaches nor suggests such a configuration. Furthermore, as noted above, element 102 of August neither teaches nor suggests a first connector (as the term is used in claim 28), and thus the cited art does not even show a pin that is perpendicular to a first connector.

Additionally, the cited art would not be expected to teach or suggest at least one pin, configured to make electrical contact with a first electrical contact of a first circuit board and a second electrical contact of a second circuit board, that is perpendicular to a first connection, which transmits at least one signal between the first circuit board and the second circuit board. In August, the only connection between the boards 103 and 105 is the electrical contact that is formed when the dual flex pins 101 are inserted into plated-through holes 108 and 110. There is clearly no teaching or suggestion to have at least one pin be perpendicular to another connection, since there is no other connection (other than the one formed by the dual-flex pins themselves) usable to transmit a signal between the boards. In other words, given that the only contact between the boards in August’s system is the electrical contact formed by the dual-flex pins, there is no suggestion to have those dual-flex pins be perpendicular to another connection between the boards.

Rejection of Claims under 35 U.S.C. §103

Claim 35 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over August, et al., U.S. Patent No. 4,911,645 (August). Claims 36 and 46-48 stand rejected under 35 U.S.C. §

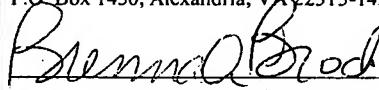
103(a) as being unpatentable over August, et al., U.S. Patent No. 4,911,645 (August) in view of Imamura, U.S. Patent No. 5,219,292 (Imamura). These claims are patentable over the cited art for at least the foregoing reasons presented above with respect to claim 28.

Additionally with respect to claim 35, Applicant notes that the Examiner's opinion that a limitation is a matter of design choice is not a proper basis of rejection. The Examiner has the burden "to produce the factual basis for the rejection of an application under sections 102 and 103." *In re Warner*, 154 USPQ 173, 177 (C.C.P.A. 1967), *cert. denied*, 389 U.S. 1057 (1968). A statement that something is a matter of design choice in the Examiner's opinion is not a factual basis. Furthermore, the Board has held that examiners have misstated the law by "equating that which is within the capabilities of the skilled designer with obviousness." *In re Sung Nam Cho*, 813 F.2d 378. Therefore, the rejection of claim 35 is improper. As such, Applicant respectfully request the withdrawal of this rejection.

CONCLUSION

In view of the amendments and remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned at 512-439-5087.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on May 9, 2006.

 5/9/2006
Attorney for Applicant(s) Date of Signature

Respectfully submitted,


Brenna A. Brock
Attorney for Applicants
Reg. No. 48,509
(512) 439-5087 [Phone]
(512) 439-5099 [Fax]